



## **REDUCTION OF SOCIO-OCCUPATIONAL STRESS IN FOREX MARKET TRADERS: IMPLEMENTATION OF SOCIAL SKILLS TRAINING**

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### **ABSTRACT**

Stress is an inseparable of workplace and labor force has to deal with a great deal of socio-occupational stress especially in FOREX markets. Social skills training (SST) is considered to be a key instrument to alleviate stress and enhance adjustment and adaptation. The study aimed to evaluate the efficacy of SST on socio-occupational stress in FOREX retail traders. To do so, 40 volunteer FOREX retail traders placed into 2 experimental and control group and their social stress (measured by SRRS) assessed before and after administration of SST course on experimental group. Results indicate that administration of SST course reduced stress significantly in experimental group ( $p < .000$ ) compared with control group and such reduction remained in 8-week-later follow-up ( $p < .000$ ). These results reveal the stable utility of SST on decrease the of labor force stress on workplace. The implications have been discussed.

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### **Introduction**

Job/occupation has been considered as a crucial part of modern era life. Nowadays, people shall practice at least one domain in order to cover their own expenses after certain ages and one of the most important economic indices of each nation is about its working labor force to the extent which any variation in labor force would result in dramatic economic changes e.g., [1, 2, 3]. Labor force is a backbone of any given country's development. A healthy, well-trained and motivated workforce increases productivity and generates wealth that is necessary for the good health of the community at large [4]. One of the most important issues of concern in the field of occupational health is stressful labor sectors. According to authorities, an increasing number of laborers in industrial countries complain about occupational stress and overwork. These sociopsychological factors have been found to be strongly associated with health problems such as insomnia, depression, fatigue, and burn-out syndromes, as well as with elevated risks of cardiovascular diseases. It is assumed that, with some exceptions, merely 20-50% of labor force of industrial countries as well as 5-10% of labor force of developing countries have access to adequate occupational health services and not regularly evaluated for occupational health and safety [5, 6]. Occupational stress has become one of the most serious health issues in the modern world [7] and in recent years, occupational stress has become one of the most popular topics for applied research in psychology, and in the broader areas of social and medical sciences [8, 9]. Recently, several issues have made occupational stress an important topic for study of organizational and industrial psychology and workplace social interactions [10]

1. Stress has harmful psychological and physiological effects on employees
2. Stress is a major cause of employee turnover and absenteeism
3. Stress has a contagious characteristic which means that employees' stress can be transmitted from one to another and put safety/health of other employees at risk
4. Via Optimal management of dysfunctional occupational stress, personnel and organizations can be managed more efficiently.

Social relations and interactions play an important role in maintaining a stress level in people. Specifically, individuals with high levels of occupational workloads also have social/interpersonal stress via mechanisms including excessive reassurance-seeking, insecure attachment orientation, personality and cognitive style characteristics, maladaptive interpersonal stress responses, and ineffective interpersonal problem solving [11, 12, 13]. Moreover, individuals who have problems in their social relations display a range of dysregulated actions such as impulsivity, and/or consuming alcohol to cope [14], which would likely compromise interpersonal functioning and contribute to interpersonal impairment.

Exchange markets are among stressful labor sectors and foreign exchange (FOREX) is considered the most stressful areas within this occupational sector [15]. In the lowest level of the FOREX market, are retail FOREX traders. Retail traders with personal micro enterprises constitute a growing proportion of FOREX market with the emerge of retail foreign exchange software platforms, both in size/importance and online/offline form. At the moment, because of FOREX regulations, retail traders can participate indirectly in the market through brokers or banks (Frankel, 2008).

FOREX market is a live market in which any change in the trend of currencies can take place in each moment and the predictability of the market is usually low. While traders often experience highs and lows of trading, one factor is a constant threat: trader stress. Traders live under a high amount of stress in their daily lives. Of course, stress is also experienced in the general population in high and unhealthy levels. But trader stress is manifested differently so it often goes unrecognized and, therefore, uncontrolled. This can affect a trader's health, trading capacity, and life [16]. Trading may be one of the most stressful professions in today's world, but also one of the most rewarding. Despite the pros, high levels of occupational stress are considered as inseparable parts of FOREX trading and any trader of this labor sector with any amount of investment needs to be able to handle the stress load as well as manage to reduce it, and hence, any trader's life is filled with uncertainty [16]

There are few publications about FOREX traders and their occupational circumstances, as well as their socio-occupational stress, and those published works are not academic-proven papers and/or studies e.g., [16, 17, 18]. In addition, most papers about FOREX are either about prediction of charts/prices or implementation of new artificial intelligence (AI) in this field e.g., [19, 20, 21, 22, 23]. Socio-occupational is the main cause of job burnout and imposes many costs to labor force as well as employers [5, 24] and this burden costs an arm and leg in the domain of FOREX market, because each little fault would result in great amounts of money loss and even result in bankruptcy [25].

One the recent techniques of social and occupational stress reduction is teaching for social skills. Social skill is any skill facilitating interaction and communication with others. Social rules and relations are created, communicated, and changed in verbal and nonverbal ways. The main process of learning such skills is called socialization [26, 27]. Mostly, social skills are described as learned behaviors necessary for a person to function effectively and appropriately in social situations. When people's social skills reservoir is low or their social skills are inefficient, they exhibit many psychosocial problems, become less affectionate toward others, and/or unable to control their emotions as well as behaviors and social interactions [28]. Social skills are considered to form of self-control over acting prosocially, or in other terms, resistance from acting antisocially. Learning and improving social skills results in a greater awareness of how to act appropriately in social situations, help people interact more flexible, express their worries, find support and even help rehabilitate from sever chronic mental health issues [29, 30 ,28]. These findings show that social skills training could be effective on improvement of social life and reduce social stress. However, there is no published paper/report about its efficacy on regulation of stress among FOREX retail traders. Therefore, this study aimed to assess and intervene social stress of FOREX traders of Iran in order to make a better understanding of stress mechanisms in this labor sector and evaluate interventions in micro-level to improve socio-occupational aspects and hopefully quality of life of FOREX retail traders.

## **2. Method**

### **2.1. Design**

The design of the study was quasi-experimental because of the sampling method The basis of the experimental design in the present study is pre-test and post-test with control group. This design consists of two experimental and control groups and each group is observed (assessed) twice [31].

### **2.2. Participants**

According to the aim of the present study, the population of the research consisted of all, FOREX traders considered as those who are citizen of I.R. Iran. Using accidental and snowball sampling and regarding the study control variables, 308 FOREX traders have been reached. However, just 178 individuals matched the inclusion criteria and/or cooperated until the end of the study. Because of having both genders stratified random sampling were used in order to consider the gender ratio (female=20%, male=80%) and two 20-subject equal groups were chosen and assigned to experimental (female=4, mean

age=32.6, SD=3.2; male= 16, mean age=33.2, SD=3.1) and control group (female=4, mean age=32.8, SD=3.4; male=16, mean age=33.5, SD=3.7).

These control variables include being FOREX retail trader (having at least 2 consecutive years of work experience in FOREX retail trading, having an account amount ranged between 500 to 5000 \$ of their own and were trading by the study period); residence (citizen of I. R. Iran and living in Tehran); having no pathological history of CNS; having no pathological history of visual system; having no kind of color-blindness (Assessed by Ishihara Test for Color Deficiency); having no history of Visual agnosia; having no history of encephalitis and other CNS diseases; having no current usage of medicine that affects visual & attentional systems; no history of drug dependency and/or drug abuse; having no current drug dependency and/or drug abuse; having no refraction defections; having no history of and/or current psychotic disorders (Schizophrenia, psychotic depression and etc.); and having no history of and/or current psychological and/or psychiatric disorder that affects attention. All the above issues were assessed via using a structured clinical interview and neuropsychological screening checklist designed by researchers. In addition, all the experiment phases were done between 3 and 7 pm in order to control the diurnal rhythms fluctuations.

### 2.3. Instruments

**2.3.1. Demographic questionnaire:** This researcher-made questionnaire includes questions about age, religion, educations, socioeconomic stage, residence and neuropsychological control variables (e.g., handedness, eye dominance, colorblindness and having no disturbance or disorder in neurological & sensory systems related to executive functions; see control variables for a full list of these issues).

**2.3.2. Ishihara's tests for color deficiency:** In order to match subjects & reduce neuropsychological and perceptual dissonance among sample group, all the subjects were administered Ishihara's tests for color deficiency. This test consists of a booklet in which there are 38 hand-painted colorful figures and with the administration of it according to instructions, it would be revealed if one any sort of colorblindness is exist [32].

**2.3.3. The Social Readjustment Rating Scale (SRRS):** In order to assess the stress levels of the participants, The Social Readjustment Rating Scale (SRRS), which is also known as The Holmes and Rahe Stress Scale HRSS, [33] with Paykel's complementary life stress list [34, 35] was administered in the study. This scale contains 63 life events with different ratings of stress level as being the most common and stressful. Some of the events are traumatic whereas others would be pleasant and enjoyable. However, they are all require some change in a person's life to readjust to the situation. Participants should read the list and decide which items apply to them. Then, the sum of the scores would indicate the stress level. The reliability of the original scale was calculated with the Cronbach's alpha of .79 [36] and The Cronbach's alpha for Persian version was .94 and the scale evaluated as of a high validity to assess the stressful life event in Persian Population [37]. For a more detailed description of the questionnaire, see the appendix.

**2.3.4. Social Skills Training Course (SSTC):** In order to facilitate social relations and emotional processing of participants, The Social Training Course (SSTC) were used which has been derived from the work of [38] on life skills with skills focused on the facilitation of social relation skills. These skills have been widely used to improve social and relational skills as well as alleviation of stress and emotional regulation. These skills has been used widely in Persian population in sectors different in age, socioeconomic stage, and problems and the researchers has used them apart or mixed together [39, 40, 41, 42]

In the present study, the SSTC comprised Coping concept in social relations, coping process, coping Strategies, coping with failure, coping with stress, coping with anger, and coping with trauma. Each section was presented in a three-hour workshop session (totally seven sessions) in which the issues and skills presented by group discussion method (figure 1).

**Figure 1.** stages of Social Skills Training Course (SSTC)

No.	Session title	Headline of contents
1	Coping concept in social relations	Social relations definition, social relation types, primary appraisal, secondary appraisal, coping definition, types of coping, benefits of coping in social relations.
2	Coping process	Assessment of social relation problems, assessment of stressful events, coping with daily hassles, dealing with problems in social relations
3	Coping Strategies	Using supportive systems, social problem solving, brain storming, use of group and social discussion, relaxation, locus of control, self-talk, humor, sports, social rewards, regulation of expectancies with real social facts, norms and values.
4	Coping with failure	Definition of failure, assessment of the problem, negotiation, social problem solving, assertion, personal and relational competence, social compensation, social desire, development of social learning capabilities, adaptation to social norms and values, correction of socialization figures.

5	Coping with stress	Definition of stress, types of stress, stress experience in social relations, social anxiety, agoraphobia, assessment of social stress, knowing stress causes and sources in social life, rules to cope with stress, stress management techniques in social relations, changing the life style, make a better understanding of social demands.
6	Coping with anger	Definition of anger, types of anger, roots and causes of anger, anger in history, anger in the context of social life, cost-benefit of anger, effects of anger in social life and society, assessment of anger in social relations, coping with anger, anger control, assertiveness, rational anger expression, negotiation with social sources of anger, forgiveness in social relations.
7	Coping with trauma	Definition of trauma, types of trauma, causes of trauma, social traumas, coping with traumas, coping with trauma after-effects, social support for traumatized people, reduction of social trauma, self-assertion in social traumas.

#### 2.4. Procedure

In order to gather the initial participants of the study, via using accidental and snowball sampling methods respectively, 308 FOREX traders (female= 95; male=213) have been reached in which 216 people were volunteered to participate in the study (female=43; male=173) and screened according to control variables, Ishihara Test for Colour Deficiency and demographic questionnaire as well as administrating SRRS. After screening phase, it has been revealed that 178 participants (female=37, male=141) have the minimum optimal perquisites (according to control variables). In order to form study groups, 40 participants were chosen with the use of stratified random sampling and divided into two equal 20-subject experimental groups: Experimental and control groups.

The experimental group participants underwent the administration of SSTC for seven consecutive weeks (one session a week), while the control group just took part in seven free discussion sessions equal to SSTC course sessions at the same time and same building (but in a different room) with the difference that the control group just spoke about their issues and problems in their social relations and received no training or professional guidance. These free-discussions were held due to the fact that it is not ethical to leave a control group without any intervention to improve their life-style. In addition, the halo effect (being under supervision and taking part in a seven-session group course) have been controlled by this act. After the last session, all the participants have administered SRRS as their posttest. To ensure about the consistency of the results, 8 weeks later, all the subject administered SRRS as follow-up.

#### 2.5. Ethics of Study

All the participants (primary volunteered participants and participants in experimental groups) filled out written subscriptions. The participants were informed about the possibility to withdraw from the experiment at any time for any given reason. In order to satisfy the anonymity and secrecy of their privacy, all participants' personal data indicating any cue/trace to any issue of participants' identity have been excluded from the study documents. All the participants were remunerated for the participation. In addition, the results of the administration of instruments were reported to participants and been given professional advice to solve their problems individually, so that they could have the guide on how & where to resolve their own issues.

#### 3. Results

The descriptive results of administration of The Social Readjustment Rating Scale (SRRS) on all participants are presented in table 1. According to the table, descriptive indices of Stress Row Score are  $m=395.35$  and  $SD= 57.19$ , Reducing Stress resistance  $m=154.91$  and  $SD= 53.30$ , Increasing Stress Resistance  $m=76.34$  and  $SD=54.20$ , and Life Stress  $m=473.91$  and  $SD=86.618$ . According to the test instructions, Life Stress scores are in three ranges: health (under 150), at risk (150-300), and problematic (above 300; ,36]. Transformation of scores of all sample group participants showed that they were all above 300.

**Table 1.** Descriptive Statistics of SRRS in sample group

	N	Minimum	Maximum	Mean	Std. Deviation
Stress Row	178	300	581	395.35	57.191
Resistance Reduce	178	40	400	154.91	53.309
Resistance Increase	178	0	200	76.34	54.209
Life Stress	178	320	831	473.91	86.618

In addition to the above table, the administration the SRRS in Experiment and Control groups in three phases of pre-test, post-test, and follow-up are presented in table 2, in which Stress Row Score (Pre-test  $m=427.75$ ,  $SD=72.45$ ; Post-test

m=300.20, SD=97.95; Follow-up m=309.32, SD=100.81), Reducing Stress Resistance (Pre-test m=164.50, SD=57.06; Post-test m=101.45, SD=50.26; Follow-up m=104.75, SD=57.19), Increasing Stress Resistance (Pre-test m=89.75, SD=58.02; Post-test m=156.75, SD=63.62; Follow-up m=153.75, SD=64.55), and Life Stress (Pre-test m=502.50, SD=82.72; Post-test m=244.90, SD=152.38; Follow-up m=260.33, SD=167.82) are demonstrated.

**Table 2.** Descriptive Statistics of Experimental Groups

	N	Minimum	Maximum	Mean	Std. Deviation
Stress row					
Pre-test	40	310	560	427.75	72.451
Post-Test	40	131	532	300.20	97.956
Follow-up	40	136	520	309.32	100.815
Resistance reduce					
Pre-test	40	60	320	164.50	57.063
Post-Test	40	30	240	101.45	50.261
Follow-up	40	10	260	104.75	57.019
Resistance Increase					
Pre-test	40	0	200	89.75	58.022
Post-Test	40	40	320	156.75	63.625
Follow-up	40	30	340	153.75	64.557
Life Stress					
Pre-test	40	330	690	502.50	82.721
Post-Test	40	11	550	244.90	152.384
Follow-up	40	1	600	260.33	167.825

The reliability indices for SRRS show a good level of reliability for overall test with Cronbach's alpha of .70 and Guttman split-half coefficient of .67. The Cronbach's alpha and Guttman split-half coefficient for subscales of SSRS include Stress Row score .65 and .60, Decreasing stress Resistance .72 and .63, Increasing Stress Resistance .61 and .68, and Life Stress .69 and .66, respectively (Table 3).

**Table 3.** Reliability coefficients of SSRS

	Cronbach's Alpha	Guttman Split-Half Coefficient
SRRS Total	.70	.67
Stress Row	.65	.60
Stress Decrease	.72	.63
Stress Increase	.61	.68
Life Stress	.69	.66

In order to investigate the effect of Social Skills Training Course (SSTC) on stress, the scores of experiment and control group in Social Readjustment Rating Scale (SRRS) in three phases of pre-test, post-test, and 8-week-later follow-up were compared with independent-samples t-test. The results showed that in pre-test there was no significant difference between two groups, while in post-test the experimental group showed a reduction in stress scores ( $t=12.24$ ,  $p<.0001$ ), and this difference was stable during the 8-week-later follow up with  $t= 13.64$  and  $p<.0001$  (table 4). Therefore, the hypothesis 3 has been statistically confirmed at the significance level of  $p<.0001$ .

**Table 4:** Independent Samples T Test for SRRS in experimental phase

		Experiment		Control		t-test for Equality of Means		
		M	SD	M	SD	t	df	Sig. (2-tailed)
Life Stress Pretest	Equal variances assumed	503.60	87.62	501.40	79.78	.083	38	.934
	Equal variances not assumed							
Life Stress Post	Equal variances assumed	110.50	64.53	379.30	73.96	-12.246	38	.000
	Equal variances not assumed							
Life Stress Follow	Equal variances assumed	109.30	65.42	411.35	74.25	-13.649	38	.000
	Equal variances not assumed							

#### 4. Discussion

The results of Administration of SRRS in the study sample are presented in table 3-25, which shows the minimum life stress of 320. According to the SRRS manual, scores more than 300 units increase the chance of minimum life stress to 80% within a [33]. This finding is consistent with Tsai, & Chan's (2010) work on laborers of financial market with the result of high occupational stress in this sector. In addition, FOREX trading is considered to be one of the most stressful professions in today's world, and as it has been explained before (see "FOREX") the process of working in such area is in essence stressful, let alone being involved in some other marginal and daily issues. This external stress is high and there should be some supportive systems in order to help traders not to tolerate that amount of stress [43, 44, 45].

Most of the studies in the field of occupational stress have found that psychosocial work stress is associated with various health issues such as recurrent coronary heart disease events, high blood pressure, musculoskeletal disorders, lifestyle cancer risk factors, psychosomatic symptoms and burnout e.g, [46, 47, 48]. Globalization has had a growing impact on working environments. The global market is closely woven, and the economic development of each country can, therefore, be influenced swiftly and deeply by other countries; this is especially evident in the connection of the stock markets [49]. Studies have shown that unemployment rates rise with economic crisis and are associated with a significant short-term increase in premature death. In addition, a financial crisis has the potential to cause long-term health effects due to lower incomes. Financial analysts write industrial reports and comment on future trends. Traders have to jump in and out of stock, bond or futures markets on a daily basis. The work environments of financial workers are deeply linked with the global market [43, 50].

The results derived from inferential statistical analyses revealed that in experimental groups, interventions with the aim of improvement of social skills, namely Social Skills Training Course (SSTC), can reduce the levels of stress in Iranian FOREX traders which are considered as laborers of stressful labor sector. This finding is in line with the previous studies about interventions in job stress and strain and interestingly the results are alike both for female and male participants. Evidence support the positive role of SSTC on reduction of occupational and psychosocial stress as well as increase in quality of life and health outcomes of personnel [51, 52, 53, 54, 55, 56].

Social skills training courses (SSTC) comprise various interventions, and mostly has the preventive characteristic in their essence. Short-term and time-limited social skills trainings have been shown to reduce symptoms of anxiety, social and occupational stress, and depression. Such prevention-based approaches that target the student population may also lead to earlier identification of anxiety and depression, before they become more clinically significant and impairing. Altogether, evidence-based studies have shown significant reductions in psychological distress and stress, depression, suicidality, and nonsuicidal self-injury, increases in acceptance and mindfulness, and high ratings for group satisfaction, as results of social skills training courses [57]

Reduction of social stress is a major target to researchers, clinicians, employers, and policymakers who hope to bolster the well-being of society, and addressing this question has the potential to inform theoretical understanding of how stress affects relationship functioning. Social skills training, specifically those which implemented in the present study, focus on amend and improve interpersonal communication skills of people in various life atmospheres include their workspace. Participants of such courses eventually learn and practice new methods to better communicate and express their demands from others in their work and private-life environments. The more individual become capable of communicate and assert her/his inner intentions and demands in workspace, the better response she/he can get from other people/colleagues/employers/employees and hence, the social relation would improve. As discussed earlier, sincerer social relations would lessen the perceived psychosocial stress. Altogether, it appears that social skills training can intervene in the dysfunctional cycle of job stress and either having adaptive social skills or acquiring it will result in less stress perception in laborers.

#### References

1. Khoudja, Y., & Platt, L. (2018). Labour market entries and exits of women from different origin countries in the UK. *Social Science Research*, 69, 1-18.
2. Brianzoni, S., Campisi, G., & Russo, A. (2018). Corruption and economic growth with non constant labor force growth. *Numerical Simulation*, 58, 202-219.
3. Nucci, F., & Riggi, M. (2018). Labor force participation, wage rigidities, and inflation. *Journal of Macroeconomics*, 55(3), 274-292.
4. Tadesse, T., & Admassu, M. (2006). *Occupational health and safety*. Harare, Ethiopia: University of Gondar Press.
5. Shahsavarani, A. M. (2017). Occupational Stress. *Farhang-E-Mobin*, 2(15), 32-37 [Persian].
6. Concha-Barrientos, M., Imel, N.D., Driscoll, T., Steenland, N.K., Punnett, L., Fingerhut, M.A., Prüss-Üstün, A., Leigh, J., Tak, S.W., Corvalán, C. (2004). Selected occupational risk factors. In M. Ezzati, A.D. Lopez, A. Rodgers & C.J.L. Murray (Eds.), *Comparative Quantification of Health Risks*. Genève, Switzerland: World Health Organization.

7. Lu, L., Cooper, C. L., Kao, S.-F., & Zhou, Y. (2003), Work stress, control beliefs and well-being in Greater China: An exploration of sub-cultural differences between the PRC and Taiwan. *Journal of Managerial Psychology*, 18(6), 479-487.
8. Åkerstedt, T., Perski, A., & Kecklund, G. (2017). Chapter 77: Sleep, Occupational Stress, and Burnout. In M. H. Kryger, T. Roth, & W. C. Dement (eds.), *Principles and practices of sleep medicine* (6<sup>th</sup> Ed.), Pp. 736-741.e4.
9. Cooper, CL, & Payne, R. (1994). *Healthy Mind; Healthy Organization— A Proactive Approach to Occupational Stress*. *Human Relations*. 47, 455-471.
10. Jayashree, R. (2010). Stress management with special reference to public sector bank employees in Chennai. *International Journal of Enterprise and Innovation Management Studies*, 1(3), 34- 35.
11. Flynn, M., & Rudolph, K. D. (2008). Stress generation and adolescent depression: Predictive contribution of maladaptive responses to interpersonal stress. Paper presented at the biennial meeting of the Society for Research on Adolescence, Chicago, IL, USA.
12. Bottonari, K. A., Roberts, J. E., Kelly, M. A. R., Kashdan, T. B., & Ciesla, J. A. (2007). A prospective investigation of the impact of attachment style on stress generation among clinically depressed individuals. *Behaviour Research and Therapy*, 45, 179–188.
13. Safford, S. M., Alloy, L. B., Abramson, L. Y., & Crossfield, A. G. (2007). Negative cognitive style as a predictor of negative life events in depression-prone individuals: A test of the stress generation hypothesis. *Journal of Affective Disorders*, 99, 147–154.
14. Selby, E. A., Anestis, M. D., & Joiner, T. E. (2008). Understanding the relationship between emotional and behavioral dysregulation: Emotional cascades. *Behaviour Research and Therapy*, 46, 593–611.
15. Levinson, M. (2006). *Guide to financial markets*. London, UK: Profile Books LTD.
16. Coulling, A. (2013). *FOREX for beginners*. USA: Create Space Independent Publishing Platform.
17. Volman, B. (2011). *FOREX price action scalping: An in-depth look into the field of professional scalping*. USA: Light Tower Publishing.
18. Galati, G. & Melvin, M. (2004). Why has FX trading surged? Explaining the 2004 triennial survey. *BIS Quarterly Review*, December 2004, 67-74.
19. Petropoulos, A., Chatzis, S. P., Siakoulis, V., & Vlachogiannakis, N. (2017). A stacked generalization system for automated FOREX portfolio trading. *Expert Systems with Applications*, 90, 290-302.
20. Perera, S., & Long, H. (2107). An approximation scheme for impulse control with random reaction periods. *Operation Research Letters*, 45, 585-591.
21. Dash, R. (2017). An improved shuffled frog leaping algorithm based evolutionary framework for currency exchange rate prediction. *Physica A*, 486, 782-796.
22. Baruník, J., Kočenda, E., & Vácha, L. (2017). Asymmetric volatility connectedness on the FOREX market. *Journal of International Money and Finance*, (Article in Press), DOI: <http://dx.doi.org/10.1016/j.jimonfin.2017.06.003>.
23. Cerra, V. (2017). How can a strong currency or drop in oil prices raise inflation and black-market premium? *Economic Modelling*, (Article in Press), DOI: <http://dx.doi.org/10.1016/j.econmod.2017.05.015>.
24. Shahsavarani, A. M., Marz Abadi, E. A., & Hakimi Kalkhoran, M. (2015). Stress: Facts and Theories through literature review. *International Journal of Medical Reviews*, 2(2), 230-241.
25. Melvin, M. and Taylor, M.P. 2009. The crisis in the foreign exchange market. CESifo Working Paper Series No. 2707, Munich, Germany.
26. Anthony, C. J., DiPerna, J. C., & Lei, P. (2016). Maximizing measurement efficiency of behavior rating scales using Item Response Theory: An example with the Social Skills Improvement System — Teacher Rating Scale. *Journal of School Psychology*, 55, 57-69.
27. Broekhuizen, M. L., Mokrova, I. L., Burchinal, M. R., Garrett-Peters, P. T. (2016). Classroom quality at pre-kindergarten and kindergarten and children’s social skills and behavior problems. *Early Childhood Research Quarterly*, 36(3), 212-222.
28. Savage, M. W., & Tokunaga, R. S. (2017). Moving toward a theory: Testing integrated model of cyberbullying perpetration, aggression, social skills, and internet self-efficacy. *Computers in Human Behavior*, 71, 353-361.
29. Antai-Otong, D. (2017). Psychosocial recovery and rehabilitation. *Nursing Clinics of North America*, 51(2), 287-297.
30. Spain, D., Blainey, S. H., & Vaillancourt, K. (2017). Group cognitive behaviour therapy (CBT) for social interaction anxiety in adults with autism spectrum disorders (ASD). *Research in Autism Spectrum Disorders*, 41-42, 20-30.
31. Kumar, R. (2010). *Research methodology: A Step-by-step guide for beginners*. Thousand Oaks, CA, USA: Sage Publications Ltd.
32. Ishihara, S. (2008). *Ishihara’s tests for colour deficiency* (38 plates Edition). Tokyo, Japan: Kanehara trading Inc.

33. Holmes, T. H., & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research*, 11(2), 213–218.
34. Paykel, E. S. (1997). The interview for recent life events. *Psychological Medicine*, 27, 301-310.
35. Oei, T. I., & Zwart, F. M. (1986). The assessment of life events: Self-administered questionnaire versus interview. *Journal of Affective Disorders*, 10, 185-190.
36. Heydari, A., & Namjoo, Z. (2012). Comparison of alexithymia, attachment styles and stress in men and women employees in Ahwaz, Iran. *Journal of New Findings in Psychology*, 20, 21-40 [Persian].
37. Mashhadi, H. A., Arizi, H. R., & Malakpour, M. (2007). Comparison of level and resources of mental stress and their relation with demographic characteristics of teachers in regular and exceptional schools. *Daneshvar-e Raftar*, 12(12), 63-72 [Persian].
38. Klienke, C. L. (2002). *Coping with life Challenges* (2<sup>nd</sup> Ed.). Long Groves, IL, USA: Waveland Pr Inc.
39. Keshavarzi, M. A., & Aryanpour, S. (2011). The role of social skills training in prediction of Cognitive-somatic stress and anxiety and self-confidence in athletes. *Behboud*, 14(2), 132-141 [Persian].
40. Qarabaqi, F., & Vafaei, M. A. (2010). Cognitive appraisal, emotionally focused coping with family conflicts and child health: Investigating the Cognitive Stress Theory in school age students. *Psychological Studies*, 5(4), 169-177 [Persian].
41. Nassaji, S. G., Peyvastegar, M., Hosseinian, S., Mutabi, F. & Banihashemi, S. (2010). Effectiveness of cognitive-behavioral intervention on coping responses and cognitive emotion regulation strategies in women. *Journal of Behavioral Sciences*, 4(1), 35-43 [Persian].
42. Mohammadi, S. D., Torabi, S. A., & Sharaei, B. (2008). The relationship between coping styles and emotional intelligence in students. *Iran Journal of Psychiatry and Clinical Psychology*, 14(2), 176-183 [Persian].
43. Rezaei, M., Taqvaei, B., Naderi, V., & Hakimi, L. (2016). *Financial and business management*. Tehran, Iran: Enqelab Danesh Modiriati.
44. Tehranxah, R., Mohammadi, S., & Hoor, H. (2016). *Exchange markets and exchange traders*. Tehran, Iran: Jame'e Eqtesadi.
45. Abdi, R., Bashardoust, N., & Alikhah, R. (2015). *Financial management in stock markets*. Tehran, Iran: Abadgaran.
46. Landolt, K., O'Donnell, E., Hazi, A., Dragano, N., Wright, B. J. (2017). An experimental examination of the effort-reward imbalance model of occupational stress: Increased financial reward is related to reduced stress physiology. *Biological Psychology*, 125, 121-129.
47. Kim, K. W., Park, S. J., Lim, H. S., Cho, H. H. (2017). Safety Climate and Occupational Stress According to Occupational Accidents Experience and Employment Type in Shipbuilding Industry of Korea. *Safety and Health at Work*, 8, 290-295.
48. Desouky, D., & Allam, H. (2017). Occupational stress, anxiety and depression among Egyptian teachers. *Journal of Epidemiology and Global Health*, 7(3), 191-198.
49. Tsai, F. J., & Chan, C. C. (2011). The impact of the 2008 financial crisis on psychological work stress among financial workers and lawyers. *International Archives of Occupational and Environmental Health*, 84, 445-452; Pp. 445-446.
50. Suhrcke, M., Steckler, D., & Leone, T. (2009). *Recession and health in Europe: what to expect?* London, UK: European Commission.
51. Sener, D. K., & Cimete, G. (2016). A program based on Social Cognitive Theory and Smith's model of health and illness and its effect on maternal self-efficacy and child behavior. *Children and Youth Services Review*, 64, 82-90.
52. Shahsavarani, A. M., Zoghifard, E., Mishmandani, M. E., Mahmoodabadi, M., Mohammadi, A., & Sattari, K. (2016). The efficacy of psychospiritual training on improvement of organizational behavior and mental health. *Journal of Fundamental and Applied Sciences*, 8(3S), 1271-1299.
53. Mache, S. (2012). Coping with job stress by hospital doctors: A comparative study. *Wien Medical Wochenschr*, 162, 440-447.
54. Shimazu, A., & Schaufeli, W. B. (2007). Does Distraction facilitate problem-focused coping with job stress? A 1-year longitudinal study. *Journal of Behavioral Medicine*, 30, 423-434.
55. Lambert, E. G., Hogan, N. L., & Allen, R. I. (2006). Correlates of correctional officer job stress: The impact of organizational structure. *American Journal of Criminal Justice*, 30(2), 227-246.
56. Garnefski, N., Teerds, J., Kraaij, V., Legerstee, J., & van den Kommer, T. (2004). Cognitive emotion regulation strategies and depressive symptoms: differences between males and females. *Personality and Individual Differences*, 36, 267-276.
57. Eustism E. H., Williston, S. K., Morgan, L. P., Graham, J. R., Jayes-Skelton, S. A., Roemer, L. (2017). Development, Acceptability, and Effectiveness of an Acceptance-Based Behavioral Stress/Anxiety Management Workshop for University Students. *Cognitive and Behavioral Practice*, 24(2), 174-186.